

**APPLICATION**

**OF**

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**FOR**

**UNITED STATES PATENT**

**ON**

**UNIT DOSE CARTON WITH INTERNAL PLATFORM**

**Docket No.: 30015790-0127**

**4 Sheets of Drawings**

## TITLE OF THE INVENTION

### UNIT DOSE CARTON WITH INTERNAL PLATFORM

#### BACKGROUND OF THE INVENTION

5     **1.     Field of the Invention.**

This invention relates to a carton device with an internal platform. More particularly, the invention relates to a carton which stores dissimilar items on an internal platform and in wells.

10    **2.     Description of Related Art.**

Cartons are plentiful in the art and well-known. Unit dose devices are also known in the art. One unit dose device taught in U.S. Patent 3,692,228 issued to Spiegel teaches a box or carton constructed from a foldable blank in which two or more wells are formed.

15       U.S. Patent 5,076,492 issued to Tupes teaches a carton with a removable platform. This removable platform is used to form a false bottom to hold an article for display which is substantially smaller than would fill the carton. Another carton, with a shelf support, is taught in U.S. Patent 5,938,109 issued to Sainz. The Sainz patent teaches a shelf assembly, formed as part of a carton, both carton and shelf are  
20    formed from a single blank.

In some instances a unit dose of a medical preparation may require the use of dissimilar preparations whereby a user may use both liquid preparations and a wipe preparation. While the liquid preparations may be provided in a tube or bottle, the wipe preparation will often be provided in a flat plastic or metallic package. The  
25    packing requirements for a liquid preparation and a wipe-type preparation are dissimilar and not easily contained in a single package. Accordingly, it would be desideratum to provide a carton whereby a predetermined dose or dosages of both a liquid preparation and associated wipe preparation could be provided in one package.

### SUMMARY OF THE INVENTION

The carton with integral shelf described herein is a device useful for containing dissimilar components. Particularly dissimilar components of a unit dose for medical or food preparations wherein dissimilar items are provided in a single package. Specifically, a carton is provided which forms a raised platform with internal wells, bounded on three sides by the carton and on one side by the platform. A carton, which may be formed of cardboard or corrugated cardboard, with an interior space and raised platform formed inside the interior space. One or more wells are formed adjacent to the platform. A foldable cover flap closes the carton.

Other features and advantages of the present invention will be set forth, in part, in the descriptions which follow and the accompanying drawings, wherein the preferred embodiments of the present invention are described and shown, and, in part, will become apparent to those skilled in the art upon examination of the following detailed description taken in conjunction with the accompanying drawings, or may be learned by practice of the present invention. The advantages of the present invention may be realized and attained by means of instrumentalities and combinations particularly pointed out in the appended claims.

### BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a plan view of a blank used to form the carton with platform.

Figure 2 is a perspective view of a carton with platform.

Figure 3 is a partial cut-away front view of the carton with platform.

Figure 4 is a plan view of a blank used to form the carton with platform.

Figure 5 is a partial cut-away front view of the carton with platform.

It should be appreciated that for simplicity and clarity illustration, elements shown in the figures have not necessarily been drawn to scale. For example, the dimensions of some of the elements are exaggerated relative to each other for clarity. Further, where considered appropriate, reference numerals have been repeated among the figures to indicate corresponding elements.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown in Figure 2, the carton 10 is formed by a side-wall 12, which is constructed of four panels 14a-14d. The carton 10 is preferable formed of a foldable cardboard material. The carton 10 may also be formed of corrugated cardboard. As used herein a carton shall include box-like structures with square or rectangular dimensions. The sidewall 12 panels 14a-14d are formed from a single foldable 5, shown in Figure 1.

One pair of side panels 14c and 14b are spaced apart from one another and are opposing. The other pair of side panels 14a and 14d are also spaced apart and opposing each other. An interior is formed between the spaced apart pairs of side panels. Within the interior 15 a platform 20 is formed perpendicular to the sidewall 12. Preferably, the platform is positioned at a height H between about 10 and about 100 percent of the interior 15, and more preferably at a height H between about 20 to 70 percent of the interior 15. The platform 20 is also formed from the blank 5.

The platform 20 is raised within the carton 10 by supports. Two opposing leg supports 22a and 22b folded from the sides of the platform 20 are formed substantially perpendicular to the platform 20. A stabilizing support leg 24 is folded downward from the platform 20 abutting the side-wall 12. Extending in-plane with the stabilizing support leg 24 are alignment tabs 25a and 25b. Each alignment tab 25a and 25b is adjacent to, and extends from, an end 26a and 26b of the stabilizing support leg 24. The alignment tabs 25a and 25b, shown in Figures 2 and 3, extend between two sides 14a and 14d, whereby the platform 20 is stabilized. The end of the alignment tabs 25a and 25b are placed at the two front corners 30 and 35 of the carton 10 which may also help stabilize the platform 20. An upper shelf support 32 folds top downward off a side panel 14c and is adjacent thereto when the carton 10 is constructed (Figure 2). The upper platform support 32 is interposed between the side panel 14c and the platform 20. This upper platform support 32 provides structural support. By forming the opposing leg supports 22a and 22b from the portion of the blank 5 adjacent to the platform 20, a platform which does not occupy the entire volume of the carton 10 is constructed.

Wells 40 are formed on either side of the platform 20. The wells 40 span from the top of the open carton 10 to the bottom and their height is substantially the same

as the height of the sidewall 12. The wells 40 are used to hold articles. The combination of the wells 40 and the platform 20 allow for the placement of dissimilar materials inside the carton 10. For example, liquid preparations 50 can be stored in the wells 40 while package or pouch materials 60 can be placed flat on the platform 20. Those skilled in the art will recognize that the illustration of two long wells in the figures is not a limitation. A lesser or greater number of wells may be constructed using the same general method described herein.

Two side flaps 70 are part of the closure system of the carton 10. Each side flap is movable, it is pivotally connected to the sidewall and can be positioned to cover the wells 40. A top flap 80 is also formed from the blank 5. The top flap 80 is movable, it is pivotally connected to the sidewall and when shut covers the entire opening of the carton 10. A sidewall glue tab 82 is used to affix the sidewall panels into the carton 10.

The bottom 84 of the carton 10 is formed by four bottom panels 85a and 85b each connected to, and folded from, the sidewall. Each large bottom panel 85a is adjacent to a small bottom panel 85b. An adhesion region 86 is formed as part of each of the bottom panels 85a, 85b. Each large bottom panel 85a and adjacent small bottom panel 85b are held together by an adhesive, such as glue or tape placed on the adhesive region 86. Each connected large bottom panel 85a and small bottom panel 85b are then nested into each other at the catching channel 88 formed in each large bottom panel thereby forming the bottom of the carton 10. A closure flap 90 is folded from the top flap 80 to close and open the carton 10.

In accordance with one embodiment, two opposing feet 23a and 23b folded from the sides of the leg supports 22a and 22b, respectively, are formed substantially perpendicular to each leg supports 22a and 22b, as illustrated in FIGS. 4 and 5. The feet 23a and 23b prevent objects that are stored within the wells 40, such as liquid preparations 50, from slipping past each leg support 22a and 22b and under the platform 20.

Since certain changes may be made in the above apparatus without departing from the scope of the invention herein involved, it is intended that all contained in the above description as shown in the accompanying drawings, shall be interpreted as an

illustrative, and not a limiting sense. It is not intended that the invention be limiting sense. It is not intended that the invention be limited to the illustrative embodiments.